



M-STEP Mathematics Summary

*Over the past year, the Michigan Department of Education (MDE) has provided a great deal of information to the field on its new assessment system called the Michigan Student Test of Educational Progress—or M-STEP. The information related specifically to **M-STEP Mathematics** has appeared in different places and at different times. Therefore, the purpose of this document is to collect all of the information related to the mathematics test in one place. That way it will be easier for teachers, administrators, test coordinators, and others to know exactly how the test is designed and when it should be administered.*

Background

In June 2014, the Michigan Legislature required the Michigan Department of Education (MDE) to develop new, one-year-only summative tests for spring 2015. These tests were designed to replace the Michigan Educational Assessment Program (MEAP) tests and the Michigan-developed components of the Michigan Merit Examination (MME). However, the notification in June 2014 meant that the MDE had to condense a normal three-year test development process into just nine months. The department has worked hard to accomplish this task and is excited about delivering its new M-STEP assessments this spring.

Assessment Grades and Content

The M-STEP mathematics tests

- are administered to students in grades 3-8 and 11;
- are aligned to the current Michigan Mathematics Standards (concepts and procedures, problem solving, modeling and data analysis, and communicating reasoning);
- include content developed by both the Smarter Balanced Assessment Consortium and Michigan educators;
- measure current-year student knowledge (as opposed to prior-year knowledge); and
- will be administered online (paper/pencil versions of the test will be provided to schools/districts that request and are approved for that option).

Assessment Components

The mathematics tests have three components: (1) an Online Test (or paper/pencil version), (2) a Classroom Activity, and (3) a Performance Task. Students in grades 3-8 **must** be administered all three test components. However, due to concerns about testing time, the Classroom Activities and their accompanying Performance Tasks are **optional** for students in grade 11. (While there may be some benefits to administering these two components to grade 11

students, they are not required.) There will be no accountability penalty in terms of participation or scoring for high schools that choose not to administer them.

Classroom Activities and Performance Tasks

Classroom Activities (CA) and Performance Tasks (PTs) are new to statewide testing this spring. A brief description of each follows.

1. **Classroom Activity:** The CA is a 30-minute scripted lesson presented to students prior to the administration of the PT. The purpose of the CA is to give students a working familiarity with the context of a coordinating PT. The CA is conducted in the classroom by a teacher and, therefore, does **not** require scheduling of computer labs.

The Classroom Activity must be completed prior to administration of the PT. Inadvertently administering the PT before the Classroom Activity is considered a testing irregularity.

2. **Performance Task:** The PT is a multi-item task administered online (or via a test booklet in schools/districts approved to use paper/pencil versions of the test). It is designed to assess student understanding of mathematics content and is aligned to Michigan's content standards. For mathematics PTs, students will be asked to construct numerical responses, as well as written responses to explain their answers. Administering the PT without first conducting the CA is considered a testing irregularity.

Students may use scratch paper for the Performance Task. Blank, lined or unlined scratch paper may be passed out to students for use on the PT. Once students complete the PT, all scratch paper must be collected and securely shredded.

The CAs and PTs are meant to work together as a coordinated set. For example, the Grade 5 mathematics CA sample titled "Community Garden" discusses how people might plan their gardens for planting different fruits and vegetables. It introduces students to the vocabulary and general concepts of gardening in order to prepare them for the accompanying PT. In this way, CAs help ensure that students are able to demonstrate their understanding of mathematics concepts during the PT as opposed to their understanding of gardening.

To familiarize teachers and administrators with CAs and PTs, the MDE's Office of Standards and Assessment (OSA) has posted *Sample Mathematics and ELA Performance Task and Classroom Activities Grades 3–8 and 11* on the M-STEP website (www.michigan.gov/mstep). There is one sample mathematics CA and PT for each grade level, complete with embedded scoring guides. (Please note that the posted sample does not represent actual items.)

Online Administration: Component Order, Timing, and Test Window

If the mathematics tests are administered online, the MDE recommends the following component order and timing.

1. Online Test Session

- The Online Test Session may be administered in 1 session with a scheduled break (not to exceed 20 minutes) or in 2 separate sessions of equal length (45 minutes each for grades 3-5 and 60 minutes each for grades 6-8 and 11) **on the same day**.
- Breaks may be provided during test sessions using the software's pause feature.
- Although the Online Test Session is **not** timed, schools should allow about 1.5 hours of testing time for students in grades 3-5 and 2 hours for students in grades 6-8 and 11.

2. Classroom Activity (CA)

- The CA must be administered in one session as close as possible—but no more than three days prior—to the PT. The CA may be administered on the same day as the PT, if desired.
- The CA will take about 30 minutes for students in all grades to complete.
- If the CA is administered after the PT, it is considered a testing irregularity.

3. Performance Task (PT)

- The PT has 1 part (with multiple questions), which should be administered in 1 session.
- The PT will take about 1 hour for students in grades 3-8 to complete and 1.5 hours for students in grade 11.

Although this is the testing order recommended by the MDE for mathematics online test administration, schools may choose to administer the Online Test Session **after** the Performance Task (again, as long as the CA precedes the PT).

For online testing, not all students have to be administered the same assessment at the same time, nor on the same day. Schools have the flexibility to test mathematics any time within the 3-week test windows designated for students in grades 3-8 or within the 8-week test window designated for students in grade 11 (see the table on the following page).

Spring 2015 Online Testing Schedule for M-STEP Mathematics Assessments								
Week Beginning								
Grades	4/13	4/20	4/27	5/4	5/11	5/18	5/25	6/1
5 and 8								
4 and 7								
3 and 6								
11								

Paper/Pencil Administration: Component Order, Timing, and Test Window

If a school/district is approved by the OSA to take a paper/pencil version of the mathematics test, it will receive paper/pencil test booklets that follow the same blueprint as the Online Test Session (meaning the same content areas and skills are assessed). The test booklet will also include the paper/pencil PT (in other words, no component of the overall test will be administered on a computer). This does not necessarily mean the same number of items across all forms.

Paper/Pencil Test

Specific components of the Mathematics paper/pencil test are administered on specific days:

Day 1

- Day 1 mathematics paper/pencil test will include Sessions 1 and 2 and contains a variety of item types, including multiple choice, multiple-select response, table response, short response, and gridded response).
- The Day 1 test for students in grades 3-5 has two sessions. Calculators are **not** permitted for either session.
- The Day 1 test for students in grades 6-8 and 11 has two sessions. For the first session, calculators are **not** permitted. For the second session, calculators **are** permitted.
- Although the test is **not** timed, schools should allow about 1.5 hours of testing time for students in grades 3-5 and 2 hours for students in grades 6-8 and 11.

Day 2

- Day 2 mathematics paper/pencil test will include the 30-minute Classroom Activity and the Performance Task (Session 3).
- The CA will take about 30 minutes for students in all grades to complete.

- The PT has 1 part (with multiple questions), which should be administered in 1 session.
- Calculators **are** permitted during the PT (Session 3) in grades 6-8 and 11.
- Calculators are **not** permitted during the PT (Session 3) in grades 3-5.
- The PT will take about 1 hour for students in grades 3-8 to complete and 1.5 hours for students in grade 11.
- If the CA is administered after the PT, it is considered a testing irregularity.

With paper/pencil testing, the mathematics tests **must** be administered on specific days within the window designated for each grade level. Following are the dates for spring 2015.

- ***Grades 5, 8, and 11***
 - Day 1 Test: April 21
 - Day 2 CA and PT: April 22
 - Makeup: April 24-May 1
- ***Grades 4 and 7***
 - Day 1 Test: May 5
 - Day 2 CA and PT: May 6
 - Makeup: May 8-May 15
- ***Grades 3 and 6***
 - Day 1 Test: May 27
 - Day 2 CA and PT: May 28
 - Makeup: May 29-June 5

M-STEP Spring 2015 Preview

To help teachers and students prepare for spring 2015 testing, the OSA has developed the M-STEP Spring 2015 Preview. The preview allows students and teachers to (1) see what some of the Technology Enhanced (TE) items will look like on the OT, and (2) practice using the navigation tools and features of the online delivery engine.

The M-STEP Spring 2015 Preview **must** be used in Google Chrome. To access it, (1) go to <https://wbte.drcedirect.com/MI/portals/mi/ott1>, (2) click “Online Tools Training,” (3) click “Spring 2015 Preview,” (4) click “Click here to Sign-In,” (5) enter the given username and password, and (6) click “Sign In.”

Sample Item Sets

The OSA Sample Item Sets provide students and teachers with examples of test questions that demonstrate the rigor of the academic content standards being measured. Like the M-STEP Spring 2015 Preview, the Sample Item Sets are embedded in Michigan’s online delivery engine so that online testing students and teachers can become familiar with its navigation tools and features.

The difference between the M-STEP Spring 2015 Preview and the Sample Item Sets is that the preview (1) contains **both** ELA and mathematics items, and (2) the items are only at the third- and fourth-grade levels. The Sample Item Sets will be both grade- and content-specific.

If your school has installed the TSM and INSIGHT software suite, the **Online Sample Item Sets** can be accessed directly in INSIGHT. Just open INSIGHT and click on the *Online Tools Training* (OTT) link.

If your school has NOT installed the TSM and INSIGHT software suite, the Online Sample Item Sets can be accessed on the M-STEP web page at www.michigan.gov/mstep under the *Content Specific Information* section, or by copying and pasting this link into Google Chrome:
<https://wbte.drcedirect.com/MI/portals/mi/ott1>.

Note: **Paper/Pencil Sample Item Sets** are also available on the M-STEP web page under *Content Specific Information*.

Gridded Responses and Calculators

There are two resources unique to mathematics this spring of which teachers/test administrators should be aware:

1. **Gridded Responses:** Some mathematics items may require students to record their answers on a response grid in their answer booklets. A description and samples of response grids have been posted on the M-STEP website (www.michigan.gov/mstep) under “Additional Information.” The sample grids may be duplicated for creating practice tests. There is one grid for grades 3-5 and another for grades 6-8 and 11.
2. **Calculators:** The following calculators may be used for M-STEP.
 - Grades 3-5: no calculator
 - Grade 6: basic calculator
 - Grades 7 and 8: scientific calculator
 - Grade 11: scientific calculator with graphing tool

A calculator practice page is available in the M-STEP Online Tools Training, which can be accessed directly in INSIGHT (open INSIGHT and click on the *Online Tools Training* link) or if the TSM/INSIGHT software suite has not been installed, it must be accessed through Google

Chrome at <https://wbte.drcedirect.com/MI/portals/mi/>. Students taking M-STEP Mathematics online may want to practice using the online calculators before taking the test.

Mathematics Testing and the Michigan Merit Examination

The Grade 11 M-STEP mathematics test is just one part of the spring 2015 Michigan Merit Examination (MME). The MME also includes ACT Plus Writing, WorkKeys, and the M-STEP ELA, science, and social studies tests. All grade 11 students are required to take the complete MME, as well as Grade 12 students who have not previously been included in Michigan's accountability calculations. Grade 11 and 12 students who do not have valid scores in all content areas—ELA, mathematics, science, and social studies—are eligible (but not required) to re-take the MME. (See the December 8, 2014 issue of the *Spotlight* at www.michigan.gov/mstep for more information on students required and eligible to take the MME.)

Accommodations

The OSA has prepared several documents designed to provide meaningful new information and updates on student supports and accommodations. The documents include:

- *M-STEP, MI-Access, and WIDA Student Supports and Accommodations Table;*
- *M-STEP Math and English Language Arts Read-Aloud Guidelines;*
- *M-STEP and MI-Access Bilingual Word-to-Word Glossaries List;*
- *M-STEP, MI-Access, and WIDA Scribing Protocol;*
- *Michigan Accommodations Manual for M-STEP, MI-Access, and WIDA; and*
- *Recommended Qualifications and Guidelines for Use of Translators and Language Interpreters for the M-STEP and MI-Access Assessments.*

These documents are available at www.michigan.gov/mstep. They outline important changes, including, but not limited to:

- Some supports that previously had been considered an accommodation are now considered a test administration practice. They are found on page one of the *M-STEP, MI-Access, and WIDA Student Supports and Accommodations Table*.
- A student does not need to have these practices outlined in an Individualized Educational Program (IEP) in order for a school to use them with that student or groups of students. However, if the need for a support is listed on the IEP (as a need or accommodation), it **must** be provided for the student.

Special Materials

Following is a list of special materials that may be ordered on the OSA's Secure Site (<http://www.michigan.gov/baa-secure>) for the M-STEP mathematics tests. Districts needing these materials could begin placing orders on January 26, 2015.

- **Braille:** Schools/Districts with students needing braille versions of the assessment must select this option for each individual student in the Secure Site. Contracted braille is the order default for this paper-pencil material. However, if uncontracted braille is needed, schools/districts were asked to send a written request to **baa@michigan.gov** by no later than January 30th, 2015.
- **Enlarged Print for Paper/Pencil:** Students needing enlarged print should have the enlarged print form of the assessment ordered for them via the Secure Site.
- **English Glossary Reference Sheets for Mathematics and ELA Paper/Pencil:** This designated support provides students with grade- and context-appropriate definitions of construct-irrelevant terms. This support may be useful for students who need to use a dictionary on a regular basis in the classroom because of an individual student need. This support is not intended as a universal tool.
- **Translated Glossary Reference Sheets in Spanish and Arabic for Mathematics Paper/Pencil:** This designated support is intended only for students who are currently proficient in the literacy skills of their native language. This support should also only be used by students who use similar supports, such as a word-to-word bilingual dictionary, on a regular basis in the classroom. Additional languages (Cantonese, Ilokano, Korean, Mandarin, Punjabi, Tagalog, Russian, Ukrainian, and Vietnamese) will be available for download.
- **Full Mathematics Paper/Pencil Spanish Translation Test Booklet:** This designated support is intended only for students who are currently proficient in Spanish literacy skills. Incorrect identification of students who should use this support may yield less valid and meaningful assessment results.

Spotlight

The information included in this document was pulled largely from past issues of the *Spotlight*, the OSA's weekly online newsletter designed to inform people in the field about developments related to student assessment and accountability. To obtain past or current issues of the *Spotlight*, go to www.michigan.gov/baa. To sign up to receive future issues of the *Spotlight*, go to <https://public.govdelivery.com/accounts/MIMDE/subscriber/new>, enter your e-mail address, and select *Spotlight* under "Student Assessment."

Questions

If you have additional questions about the mathematics test, please send an e-mail to **baa@michigan.gov**. If you have questions about accountability, please send an e-mail to **MDE-Accountability@michigan.gov**. For phone assistance with assessment or accountability issues, please call 877-560-8378 and select the appropriate menu option (listen carefully as the options changed on January 29, 2015).